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UNITED STATES PUBLIC HEALTH SERVICE

RUPERT BLUE, SURGEON GENERAL

**EXERCISE AND HEALTH**

BY

**F. C. SMITH**

*Passed Assistant Surgeon  
United States Public Health Service*

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## EXERCISE AND HEALTH.

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Franklin to the Gout: "Leave me and I promise faithfully never more to play at chess, but to take exercise daily and live temperately."

At the age of 40 the expectation of life is less now than it was 30 years ago. This is true for both men and women. Life expectancy during infancy and childhood has increased owing to more intelligent care of young children, to the introduction of diphtheria antitoxin, and other means of combating the infectious diseases, and to more sanitary living. But the diseases of degeneration are increasing, especially those involving the kidneys, heart, and blood vessels, particularly among persons not employed at manual labor. One reason for this is the lessened physical and the increased mental work entailed by our complex social fabric. More people are engaged in sedentary occupations than formerly. More nervous energy is required of a man. Deprived of the natural assistance which physical exercise affords in eliminating through skin and lungs the waste products of the body the kidneys become overloaded and fail. Lacking the normal assistance which working muscles give to circulation as they urge the blood and lymph onward in the natural channels, and overloaded with food poisons which brain work can not burn up as physical exercise will, the arteries become brittle and weak and the heart muscle flabby like the biceps of its unfortunate possessor. The florid business man succumbs to apoplexy perhaps; another big, pasty-complexioned brain worker to nephritis; another to a fatty heart or to chronically overtaxed digestion, all of which could have been postponed for many years by a moderate amount of daily exercise. As Eager, of the Public Health Service, has said: "Most men, perhaps athletic in youth, grow stale and deteriorate in physical tone after 30; few grown women take sufficient active outdoor exercise." And the New York City department of health ascribes part of the increased mortality after middle life to "the wear and tear of the strenuous existence of modern city life, particularly associated with insufficient physical exercise in the open air."

It should be understood that what is herein said concerning the necessity for exercise is not meant to apply to those whose occupations involve daily physical exertions.

**Exercise Should Be Daily.**

That exercise is good for health and conducive to continued good health is an axiom. To exercise is an instinct, at times a reflex action, as in young children and animals. Much might be written about the place which exercise holds in the treatment of disease, especially insanity, neurasthenia, dyspepsia, and kindred ailments, but it is desired only to emphasize the importance of exercise in keeping well. Exercise is necessary for all except those actually and acutely physically ill, at all ages, for both sexes, daily, in amount just short of fatigue. For the shop girl this may mean a 3-mile walk; for the clerk, an hour's gymnasium work after a rest from the day's grind; for the business man, two hours of golf, etc. But it should be taken daily, it should be compatible with the age and physique, it should be enjoyable and not a bore, and it should never be undertaken when tired or hungry.

**Exercise and Recreation.**

These are, or should be, inseparable. Whether one walks, gardens, attends a gymnasium, or plays golf, the exercise should be free from the spirit of drudgery and filled with the zest of enjoyment. A man's exercise should, if possible, be his hobby. No matter how poor the hobby, if it induces outdoor exercise, it is justifiable. The amateur geologist, botanist, or ornithologist is perhaps less fortunate than the man who has a chicken yard or a garden, because one hobby can be cultivated only on favorable occasions and in selected places, whereas the other is an urgent daily absorption. The woman who has no maid to take the baby out for its two-hour airing is fortunate. Lacking the necessary baby, the influence of the poodle is not to be despised.

**Games.**

It is dangerous to criticize another man's favorite game. Moreover, all games are good, though some are much better than others. Too much can not be said in favor of the national sport, for while comparatively few adults play baseball, it takes thousands out of doors during the summer months. In this its influence is analogous to automobiling. Neither affords exercise to any large number of persons needing it, but both are conducive to outdoor recreation. The same may be said in much lesser degree of football and field trials.

Three good games capable of affording proper exercise to those most needing it, considering age, sex, and occupation, are golf, tennis, and croquet. The two first need no defense; the therapeutic merits of the latter may well be urged to thousands of busy people living in

small cities and towns. But, after all, the opportunity for games is small when the large number of adult city dwellers who most need exercise is considered. What opportunity for games has that mass of housed-in humanity between the Battery and Central Park, between Charter Street and Boston Common, between Claiborne Avenue and the New Orleans water front, except on rare and special occasions? The children of these quarters, with the infinite resources of childhood, will always find a place to roll a hoop or bounce a ball, but the unfortunate grown up, in dignified helplessness, must look elsewhere for his exercise.

#### The Gymnasium.

The gymnasium, where a variety of exercises may be practiced under the direction of a skilled instructor, while never available to any large number of people, holds a valuable place. The association of kindred spirits, the competition, and the zest of playing basket ball, hand ball, and other games keeps up one's attendance, while the final shower and rub down add greatly to the enjoyment of the work. Its disadvantages are that it requires some means, a decided taste which usually must be cultivated for this form of exercise, opportunity, and the fact that it is usually indoor exercise. The opportunities provided for gymnasium work by the various clubs, as well as by the Y. M. C. A. and Y. W. C. A., are not the least of the benefits afforded by these institutions. The love of a variety of sports acquired in high school and college should be counted among the advantages of higher education.

#### Heavy Athletics.

The college strong man often dies in middle life. The long-distance runner, the great-chested rower, the prize fighter, usually dies young, frequently from tuberculosis or some other disease associated with lowered resistance. Heavy athletics are pernicious. They have no place in hygienic exercise. The after effects of severe exertion are harmful. An enlarged heart is not a safe organ; a greatly increased lung capacity is not only useless but dangerous in later life.

Barring heavy athletics, youth may be given a free choice of practically all games and forms of amusement. A warning should be sounded for the man past middle age who might attempt to adopt some of the strenuous games more suited to youth, but in general such risks are infinitely less than the opposite mistake—that of taking no exercise.

#### Walking.

After all, there is only one form of exercise that is available and suitable for all ages and conditions and in all seasons. Walking is

the national pastime of at least one great foreign nation whose women are renowned for their beauty and vigor. It is a form of exercise which has been a favorite with many sages since a Greek philosopher rambled with his students through the hills and valleys of Attica. It is the best all-round exercise. It should be dignified by receiving at least the same attention in schools that grammar and elocution have and popularized by the formation of walking clubs, of which there is already a goodly number. A high score of miles weekly attained in these organizations might receive as much acclaim as the low and boasted golf score. Such clubs might foster popularity by means of distinctive dress, emblems, and customs, which have characterized many less useful institutions, or by certain requirements and attainments, especially those relating to posture. This democratic sport, this simple pleasure, this invaluable therapeutic agent, may well receive enthusiastic indorsement from every source. The Life Extension Institute, an organization devoted to the purpose of keeping people well, says in one of its health letters:

Walking is the surest method of securing daily exercise. Callisthenics for those who can not arrange for a daily walk to and from business would prove beneficial, but few have the will power to carry out these monotonous and uninteresting forms of exercise. \* \* \* If you can not play golf, or polo, or tennis, or fence, or paddle a canoe, or ride horseback, or swim, or dig in a garden, or climb the Alps, at least you can walk, walk, walk, walk, and if you try no doubt you can do it in good company, on interesting highways and byways, thereby resting and cultivating your mind while working your body—a health-producing combination.

The sentiment is not unlike that of the old bootmaker mentioned by Hinsdale in his essay, "Atmospheric Air in Relation to Tuberculosis":

The best medicine! Two miles of oxygen three times a day. This is not only the best, but cheap and pleasant to take. It suits all ages and constitutions. It is patented by infinite wisdom, sealed with a signet divine. It cures cold feet, hot heads, pale faces, feeble lungs, and bad tempers. If two or three take it together it has a still more striking effect. It has often been known to reconcile enemies, settle matrimonial quarrels, and bring reluctant parties to a state of double blessedness. This medicine never fails. Spurious compounds are found in large towns; but get into the country lanes, among green fields, or on the mountain top, and you have it in perfection as prepared in the great laboratory of nature.

Benjamin Franklin, who was a wise philosopher as well as an eminent statesman, believed that one hour's walking was worth four hours' horseback riding and more than equal to "lolling in a carriage" all day. He was loth even to admit the latter as a form of exercise, and doubtless would have been equally uncharitable toward automobile riding. A certain excellent consolidated rural school in Indiana takes great pride in the fact that none of its pupils walk;



all are called for and returned to their homes by large omnibuses, comfortably heated in winter. This illustrates to a certain extent the present-day tendency to take undue advantage of modern opportunities for coddling ourselves. We are in danger of deteriorating unless we hold fast to some of the old-fashioned principles of physical upkeep. The rising death rate after 40 is a warning.

